Gia Theodore Spring 2013

Water, Energy, and Sustainability

Instructor: Shakira Castronova

Topic : Traveling for Water – Global Water Awareness Tour

Grade: 4-6

Learning objectives and standard alignments:

New York State Learning Standards and Common Core Standards

7D Science-Students will understand the interrelationship between living organisms and Earth’s resources.

RL.2.11 Common Core Standards- Make connections between self, text, and the world around them (text, media, social interaction)

Objectives

Students will learn about water shortage in the world.

Students will identify types of crisis associated with water shortage

Students will understand how they own water usage/waste can impact the rest of the world.

Students will learn to take responsibility for water usage.

Students will observe how human decisions and activities have a profound impact on the physical and living environment.

Bloom’s Taxonomy: Knowledge, Comprehension, and Application

Professional goal: 3C from Danielson framework Competency 3C Engaging Students in Learning.

Vocabulary: water shortage, conservation, water use, location, population, hardship, water waste, Global awareness

Materials: reading materials about India, Honduras, Ethiopia, Global Water Awareness chart, Traveling for Water Word Puzzle, journals, pencils, word problems.

Background: I work with Special Needs children with various cognitive levels. My SIE VI class ranges from emergent readers to “advanced” ones. A combination of 5 different types of disabilities is represented in the class. This lesson will be adapted to reflect the uniqueness of the class. Reading materials will be simplified to facilitate comprehension, activities will be differentiated to accommodate students’ cognitive abilities, their disabilities, and learning styles.

Introduction-The innocent joke Students will be told that there is no water in the building today and that everyone will have to walk about 2 miles if they need to use water. They will be asked to get in small groups to discuss and record in their journals their feelings and reflections about having to walk miles to gain access to water. Their reactions will be shared with the whole class. After the sharing, it will then be explained that there are, indeed countries in the world where people including children their age have to travel long distance for water.

Procedures and Activities

1) The Water Crisis—Working in small groups, students will log on water.org to read about 3 countries (Honduras, Ethiopia, India) that experience serious water shortage and complete the Global Water Awareness Chart where they will describe the physical location of each country, write a short description of the water crisis in each of the 3 countries.

2) Quick Math Questions---Students will then determine the correct answer for word given problems.

A Word Problem Example

Imagine a woman living in Honduras needing 10 gallons of water from the river for her and her family’s daily needs. Each day, she walks ½ a mile to the river and back home again. If the woman can only carry 2 gallons of water at a time, how many trips will she have to make to the river to get a total of six gallons?

3) We Are All Connected---Students will be told that we are all part of the world and our water and energy consumption has a large impact on the rest of the world. They will be asked to work in groups to create a water conservation poster that contains several tips on water conservation to be shared with the school.

4) The Maze Activity— Working in pairs, students will complete a Traveling for Water Maze activity to find the missing water well.

Homework- write a short paragraph or make a list of the many ways that water shortage in the countries that we read about in the lesson will and/or will not influence your own use of water in the future. Non-writers will draw and illustrate their observation.

Differentiated Instruction: Instructions and activities for the students will be differentiated based on their cognitive level, area of interest, and disability types. During grouping, pairing, and individual activities paraprofessionals will provide assistance and guidance as required.

This lesson will be taught in 2-3, or more periods as necessary. Careful pacing, timing,

and student monitoring will be applied all throughout the lesson.

Bibliography:

Websites

Water.org [www.water.org](http://www.water.org) , a non –profit organization

Maryland Department of Natural Resources—www.dnr.state.md.us

Books

McKinney, Barbara, *A drop Around The World*

Rubric/ Assessment

Traveling for Water

The student clearly understands how water shortage impact people’s lives.

1 = Weak 2 = Moderately Weak 3 = Average 4 = Moderately Strong 5 = Strong

The student comprehends at some level the information in the Global Water Awareness chart

1. 1 2 3 4 5

2. The student responds and contributes to grouping/ pairing activities

1 2 3 4 5

3. The student asks questions to clarify verbal information.

1 2 3 4 5

4. The student responded well to paraprofessional assistance.

1 2 3 4 5

5. The student is able to state and/ or summarize what he /she learned from the lesson.

1 2 3 4 5